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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/580,495	05/30/2000	Alan Frank Graves	71493-750	8315

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DOWELL & DOWELL PC  
SUITE 309  
1215 JEFFERSON DAVIS HIGHWAY  
ARLINGTON, VA 22202

EXAMINER

TRAN, DZUNG D

ART UNIT	PAPER NUMBER
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2633

DATE MAILED: 11/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/580,495

Applicant(s)

GRAVES ET AL.

Examiner

Dzung D Tran

Art Unit

2633

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 May 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-59 is/are pending in the application.
- 4a) Of the above claim(s) 4-14, 17, 18, 25-57 and 59 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 15, 16, 19-24 and 58 is/are rejected.
- 7) ☒ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. Applicant's election of species A, subspecies 1, claims 1-3, 15-16, 19-24 and 58 in Paper No. 7 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

### ***Specification***

#### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 15, 16, 19-22 and 58 are rejected under 35 U.S.C. 102(e) as being anticipated by Sorin et al. U.S. patent no. 6,510,261.

Regarding claims 1, 15, 16, 20-22 and 58, Sorin clearly discloses in figure 31 a channel equalizer use with an optical switch (172, 182) providing individual signal paths between a plurality of input ports and a plurality of output ports, said switch having a plurality of wavelength division multiplexers (162, 184) for combining sets of individual switched optical signals into multiplexed switched optical signals, the system comprising:

a plurality of optical splitters (TAP), each being connectable to an output of a respective one of the wavelength division multiplexers (162, 184);

a plurality of variable optical attenuators (VOAs) (152) for insertion into respective ones of the individual signal paths and for individually controlling the intensity of optical signals present in said respective ones of the individual signal paths in accordance with respective intensity control signals; and

an spectral monitor 174 (same as claimed equalizer) connected to the splitters and to the VOAs, for producing an estimate of the optical power of each individual switched optical signal and generating the intensity control signals as a function of the estimates of optical power (col. 20, lines 3-21).

Regarding claim 19, Sorin further discloses in figure 28, the attenuator control circuit 158 for controlling the power of individual switched optical signal and the optical detector 156 for estimating the power of the optical signal.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2, 3, 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sorin et al. U.S. patent no. 6,510,261 in view of Taylor et al. U.S. patent no. 6,049,413.

Regarding claims 2 and 23, Sorin does not disclose the equalizer comprises: for each of the optical splitters, a wavelength demultiplexer connected to an output of said splitter, for each wavelength demultiplexer, a plurality of optical receivers connected to said demultiplexer, for each optical receivers, a power estimator connected thereto and a common controller connected to each power estimator; said controller being adapted to read a power estimate from each power estimator and to generate said intensity control signals as a function thereof. Taylor in figure 12, discloses an optical system that include a circuit for power monitoring comprises: a wavelength demultiplexer (1208), for each wavelength demultiplexer, a plurality of optical receivers (1210-1 to 1210-n) connected to said demultiplexer; for each optical receivers, a power estimator (1212-1 to 1212-n) connected thereto and a common controller (1214) connected to each power estimator for controlling the intensity (for example, by controlling the amplifier 1206-1 to 1206-n). At the time of the invention was made, it would have been obvious to a person of ordinary skill in the art to include the teaching of Taylor in the system of Sorin. One of ordinary skill in the art would have been motivated to do this since power monitoring is well known in the art for adjusting or controlling the signal intensity so that the received powers are substantially equal.

Regarding claims 3 and 24, Taylor further discloses the receivers 1006 coupled to filter 1104 for outputting a narrower bandwidth.

**Conclusion**

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Kamata U.S. patent no. 6,577,652. Optical add-drop multiplexer of WDM optical signals

b. Nishino U.S. patent no. 6,594,046. Level flattening circuit for WDM optical signals


c. Sugaya U.S. patent no. 5,812,710. Apparatus and method for optical equalization and amplification

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dzung Tran whose telephone number is (703) 305-0932.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, Jason Chan, can be reached on (703) 305-4729.

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

  
JASON CHAN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600